

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of: Jacobus

Serial No.: 09/785,385

Group No.: 2152

Filed: Feb. 16, 2001

Examiner: D. Changkong

For: DISTRIBUTED COMPUTING ENVIRONMENT

SUPPLEMENTAL APPELLANT'S APPEAL BRIEF UNDER 37 CFR §41.37

Mail Stop Appeal Brief
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Dear Sir:

I. Real Party in Interest

The real party in interest in this case is Cybernet Systems Corporation, by assignment.

II. Related Appeals and Interferences

There are two previous appeals in the above-referenced matter that may have a bearing on the Board's decision in the pending appeal. The first resulted in a BPAI Decision rendered January 31, 2007; and the second resulted in a BPAI Decision rendered July 16, 2009 (copy of which was submitted as Appendix B Evidence Item No. 1 herein).

III. Status of Claims

The present application was filed with 23 claims. Claims 1-23 are pending, rejected and under appeal. Claims 1 and 11 are the independent claims.

IV. Status of Amendments

No after-final amendment has been filed.

V. Summary of Claimed Subject Matter

Independent claim 1 is directed to a distributed network computing environment. The environment includes a plurality of clients communicating within a multicast cloud distributed network using content-specific data within messages to implement data routing and message culling in a groupware application; and one or more network routing modules or router-embedded applets operative, in addition to normal packet-routing, to permit or inhibit the distribution of a particular message based upon the content of the message. (Specification, page 8, line 17 to page 10, line 2).

Independent claim 11 is directed to a distributed network computing environment comprising a network-enabled client application. At least one lobby manager facilitates communications between the client application and a “federation.” One or more network routing modules or router-embedded applets operative, in addition to normal packet-routing, to permit or inhibit the distribution of a particular message based upon the content of the message to reduce the communications with the federation (Specification, page 8, line 17 to page 10, line 2).

VI. Grounds of Rejection To Be Reviewed On Appeal

A. The rejection of claims 1, 3, 4, 6-8, 10, 11, 14-20, 22 and 23 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,611,872 to McCanne.

B. The rejection of claim 11 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,611,872 to McCanne.

C. The rejection of claims 2, 12 and 13 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,611,872 to McCanne in view of U.S. Patent No. 6,015,348 to Lambright *et al.*

D. The rejection of claims 5 and 21 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,611,872 to McCanne in view of U.S. Patent No. 6,463,078 to Engstrom *et al.*

E. The rejection of claims 9 and 19 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,611,872 to McCanne in view of U.S. Patent No. 6,185,062 to Bayrakeri.

VII. Argument**A. The Rejection of Claims 1, 3, 4, 6-8, 10, 14-20, 22 and 23.**

Appellant's claim 1 includes the limitation of “one or more network routing modules or router-

embedded applets operative, in addition to normal packet-routing, to permit or inhibit the distribution of a particular message *based upon the content of the message.*” (Emphasis added). So the question boils down to whether McCanne discloses content-based routing. Based upon the following arguments in rebuttal of the Examiner’s position, Appellants contend that McCanne **does not** teach or suggest routing based upon the content of the message.

By way of review, in a previous decision (Appeal No. 2009-000997, submitted herewith as evidence), the Board “read the instant claims as requiring *specific data content in a message* to trigger content-based routing. According to Appellant’s unequivocal interpretation, the mere *type* of content (e.g., audio or video) would be insufficient to trigger the claimed content-based routing.” (See Board Decision, middle of page 10, emphasis in original). Appellant will analyze the Final Rejections, taking each of the Examiner’s argument in turn.

On page 3 of the Final OA, the Examiner notes that McCanne is directed to providing “application-level control to be applied to transferred data.” This is true. However, the control *is applied to the data*. In the case of Appellant, essentially the opposite is true: rather than application-level control being applied to transferred data, the transferred data itself (*i.e.*, the content), *is applied to the control*.

Appellant disagrees with the Examiner’s argument that “[o]ne of ordinary skill in the art would clearly understand that ‘application-level control’ entails looking at the content of the message.” But even if this were the case, it doesn’t require *specific data content in a message* to trigger content-based routing, as set forth in the previous Board decision.

The Examiner states that “*McCanne discloses that [t]he sender sends control information indicating the overlay group that is to be used and application-level information that describes the contents of the transmission*” (Emphasis added by the Examiner, citing 11:60-63 of McCanne). However, again, simply sending information does not mean that the content of a message somehow determines where that message will end up.

McCanne does not “provide other examples of application-level routing by looking at the content of a message.” (Final OA, toward the bottom of page 2). The Examiner points to 6:60-62 of McCanne, which states that “the Packets are dropped by the overlay network if the setup mint is not present, including the time during which the setup mint is in transit.” According to the Examiner, a

“setup mint” refers to identifier *within a database that is carried within the packet*,” citing 6:37-44 of McCanne. (Emphasis Added). The Examiner is incorrect on this point. The relevant passage of McCanne reads as follows:

“Using MINT, senders can attach named values to an overlay multicast group which is published into and across the overlay network, allowing other group members as well as network entities to query this “database” of state. Each tuple in the database, called a “mint”, is identified by its owner (the OMN sender) and name (and implicitly the group).”

As the Board will see, McCanne *does not disclose* a database “that is carried within the packet,” as suggested by the Examiner. Rather, the setup mint is published into and across the overlay network *as a separate database* to be queried by other group members and network entities. If the database was carried within a packet, clearly it would not be so freely accessible. This example of McCanne does not teach that packets are inhibited from being distributed because they lack certain identifier within the packet itself (Final OA, top of page 3).

“As another example,” the Examiner points to 19:51-59 of McCanne, which discusses transit addresses. According to the Examiner, “[b]ecause the application-level information is stored in a packet, it is properly interpreted as ‘content’ of the message.” Appellant respectfully disagrees. Just as the previous Board confirmed that the mere *type* of content (e.g., audio or video) would be insufficient to trigger the claimed content-based routing, *a peer’s IP address is not content*. Here the Examiner is confusing the address on a letter with the contents inside the envelope.

Anticipation may be established only when a single prior art reference discloses, expressly or under principles of inherency, each and every element of a claimed invention. *RCA Corp. v. Applied Digital Data Systems*, 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984). Moreover, anticipation requires the presence of all elements of a claimed invention as arranged in the claim, such that a disclosure “that ‘almost’ meets that standard does not ‘anticipate’.” *Connell v. Sears, Roebuck Co.*, 722 F.2d 1542, 1548, 220 USPQ 193, 198 (Fed. Cir. 1983). Since, in this case, McCanne neither teaches nor suggests all of the limitations of Appellant’s independent claims, *prima facie* anticipation has not been established.

B. The Rejection of Claim 11

As to claim 11, Appellant respectfully disagrees that McCanne’s “designated router” reads on a lobby manager. Appellant’s claim 11 defines a lobby manager as facilitating communications between the client application and a federation. Such a disclosure is not exclusively stated in the McCanne reference. Further, claim 11 also includes a limitation of one or more network routing modules or router-embedded applets operative to permit or inhibit distribution based upon content. Again, for the reasons set forth hereinabove, it is Appellant’s position that McCanne neither teaches nor suggests such a capability.

C. The Rejection of Claims 2, 12 and 13.

Claims 2, 12 and 13 stand rejected under 35 U.S.C. §103(a) over McCanne in view of Lambright *et al.* Apart from the failure of McCanne to disclose content-based routing, Appellant takes issue with the Examiner’s *rationale* for combining the references—that the proposed combination would “make sense” because it would allow McCanne to be used for a “different purpose.” However the mere fact that the purpose is “different” teaches away from *prima facie* obviousness. Where the teachings of two or more prior art references conflict, the examiner must weigh the power of each reference to suggest solutions to one of ordinary skill in the art, considering the degree to which one reference might accurately discredit another. *In re Young*, 927 F.2d 588, 18 USPQ2d 1089 (Fed. Cir. 1991) The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

D. The Rejection of Claims 5 and 21

Claims 5 and 21 stand rejected under 35 U.S.C. §103(a) over McCanne in view of Engstrom *et al.* Apart from the failure of McCanne to disclose content-based routing, the Examiner presents no evidence as to why or how the teachings of Engstrom *et al.* would “improve” McCanne, even though the Examiner implies that such an improvement would occur in the “same way.”

To reject a claim under MPEP 2143, as the Examiner has done in this case, the Examiner *must* resolve the *Graham* factual inquiries, then *must* articulate the following:

(1) a finding that the prior art contained a "base" device (method, or product) upon which the claimed invention can be seen as an "improvement;"

(2) a finding that the prior art contained a "comparable" device (method, or product that is not the same as the base device) that has been improved in the same way as the claimed invention;

(3) a finding that one of ordinary skill in the art could have applied the known "improvement" technique in the same way to the "base" device (method, or product) and the results would have been predictable to one of ordinary skill in the art; and

(4) whatever additional findings based on the *Graham* factual inquiries may be necessary, in view of the facts of the case under consideration, to explain a conclusion of obviousness.

The Examiner has not met this burden in this case.

E. The Rejection of Claims 9 and 19

Claims 9 and 19 stand rejected under 35 U.S.C. §103(a) over McCanne in view of Bayrakeri. Apart McCanne's failure to disclose content-based routing, the Examiner presents no evidence as to why or how the teachings of Bayrakeri would "improve" McCanne, even though the Examiner implies that such an improvement would occur in the "same way."

To reject a claim under MPEP 2143, as the Examiner has done in this case, the Examiner *must* resolve the *Graham* factual inquiries, then *must* articulate the following:

(1) a finding that the prior art contained a "base" device (method, or product) upon which the claimed invention can be seen as an "improvement;"

(2) a finding that the prior art contained a "comparable" device (method, or product that is not the same as the base device) that has been improved in the same way as the claimed invention;

(3) a finding that one of ordinary skill in the art could have applied the known "improvement" technique in the same way to the "base" device (method, or product) and the results would have been predictable to one of ordinary skill in the art; and

(4) whatever additional findings based on the *Graham* factual inquiries may be necessary, in view of the facts of the case under consideration, to explain a conclusion of obviousness.

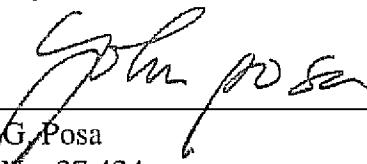
The Examiner has not met this burden in this case.

Conclusion

In conclusion, for the arguments of record and the reasons set forth above, all pending claims of the subject application continue to be in condition for allowance and Appellant seeks the Board's concurrence at this time.

Respectfully submitted,

By: _____



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APPENDIX A
CLAIMS ON APPEAL

1. A distributed network computing environment, comprising:
 - a plurality of clients communicating within a multicast cloud distributed network using content-specific data within messages to implement data routing and message culling in a groupware application; and
 - one or more network routing modules or router-embedded applets operative, in addition to normal packet-routing, to permit or inhibit the distribution of a particular message based upon the content of the message.
2. The environment of claim 1, wherein the application is a distributed simulation or game.
3. The environment of claim 1, wherein the application is a client-selectable and controllable data service associated with the distribution of audio, video, or other digital signal streams.
4. The environment of claim 1, wherein the clients enter, leave, and interact with the cloud through a lobby manager.
5. The environment of claim 4, wherein the lobby manager is further operative to validate the application in terms of compatibility and download data to correct for deficiencies.
6. The environment of claim 4, wherein the lobby manager is further operative to simultaneously support multiple clouds through multicast or replicated unicast protocols.
7. The environment of claim 1, wherein the routing modules implement application-specific message culling to reduce client-cloud communications.

8. The environment of claim 7, wherein the message culling includes message omission, rerouting, and other quality-of-service modifications.

9. The environment of claim 7, wherein the application communicates internal state changes into the cloud through an API.

10. The environment of claim 1, wherein the application is a massive groupware application involving thousands of world-wide participants.

11. A distributed network computing environment, comprising:
a network-enabled client application;
at least one lobby manager that facilitates communications between the client application and a federation; and
one or more network routing modules or router-embedded applets operative, in addition to normal packet-routing, to permit or inhibit the distribution of a particular message based upon the content of the message to reduce the communications with the federation.

12. The environment of claim 11, wherein the application is a distributed simulation.

13. The environment of claim 11, wherein the application is a game.

14. The environment of claim 11, wherein the application is a client selectable and controllable data service.

15. The environment of claim 14, wherein the data service includes audio, video, or other type of digital signal feed.

16. The environment of claim 11, wherein the routing modules further support a point-to-multipoint distributed communications model between clients.

17. The environment of claim 11, wherein:

at least some of the client applications run on host platforms; and

the routing modules further support conventional internet packet routing among the hosts.

18. The environment of claim 11, wherein the routing modules further support one or more conventional multicast protocols.

19. The environment of claim 11, wherein the application communicates internal state changes into the federation through an API.

20. The environment of claim 11, wherein the message culling includes message omission, rerouting, and other quality-of-service modifications.

21. The environment of claim 11, wherein the lobby manager is further operative to validate the client application compatibility with the federation and download data to correct for deficiencies.

22. The environment of claim 11, wherein the lobby manager is further operative to simultaneous process multiple federations.

23. The environment of claim 22, wherein the federations communicate through multicast or replicated unicast protocols.

APPENDIX B

EVIDENCE

- 1) Decision on Appeal for Appeal No. 2009-000997, dated July 16, 2009; Application No. 09/785,385.
- 2) *Connell v. Sears, Roebuck Co.*, 722 F.2d 1542, 1548, 220 USPQ 193, 198 (Fed. Cir. 1983).
- 3) *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).
- 4) *RCA Corp. v. Applied Digital Data Systems*, 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984)
- 5) *In re Young*, 927 F.2d 588, 18 USPQ2d 1089 (Fed. Cir. 1991)

APPENDIX C
RELATED PROCEEDINGS

None.